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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,787

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Norbert Klingelhage

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BACHMAN & LAPOINTE, P.C.

900 CHAPEL STREET

SUITE 1201

NEW HAVEN, CT 06510

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT

PAPER NUMBER

1715

MAIL DATE

DELIVERY MODE

12/03/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,787	Applicant(s) KLINGELHAGE ET AL	
	Examiner William P. Fletcher III	Art Unit 1715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,8-10,12,13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8-10,12,13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments and remarks filed 24 June and 29 September 2010 are noted with appreciation.
2. Claims 1-3, 5, 8-10, 12, 13, and 15-21, remain pending.

Election/Restrictions

3. Claims 18-21 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 15 October 2009.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

5. The information disclosure statement filed 18 September 2006 has been considered.

Drawings

6. The drawings were received on 19 June 2006. These drawings are acceptable.

Response to Arguments

7. The objection to the specification and rejections under 35 USC 112, 2nd paragraph, set forth in the prior Office action, are withdrawn in view of the amendment. The rejections in view of the prior art are maintained in view of the amendment and remarks. Specifically, claim 1, as amended, now includes the limitations of previously

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pending claim 4 and the limitations of claims 11 and 14, recited in the alternative. All of claims 1, 4, 11, and 14 were rejected under 35 USC 102(b) in the prior Office action and remain so herein below. As stated therein, while the claim is open to the bonding agent's being different from the PU product, it does not have to be. As such, since the PU (16) serves to bond PP substrates (14) and (15) together, it reads on the claimed bonding agent. The region of the thickness of the PU layer (16) closest the PP substrates (14) and (15) thus reads on the claimed bonding agent between the PU product and the PP nonwoven. Further, EP '779 teaches that the PU is extruded in a molten state [see p. 4 of the machine translation, full paragraphs 7, 9, and 10, for example].

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

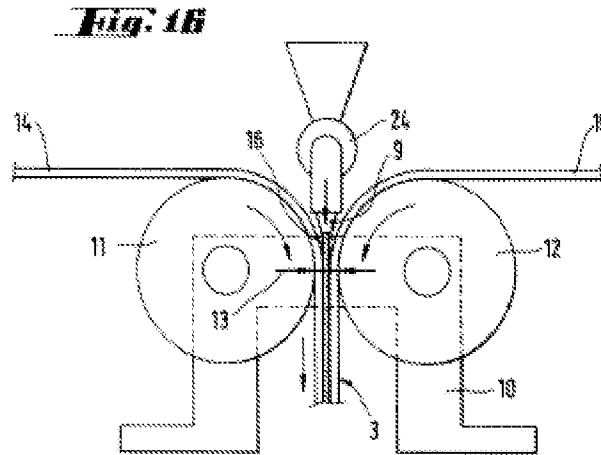
9. Claims 1, 2, 5, 9, 10, and 15-17, remain rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 700 779 A2.

A. Since this reference was cited in the International Preliminary Examination Report for PCT/EP2004/014233, of which the instant application is the National Stage Entry, Applicant is presumed to be familiar with the reference and its teachings.

B. Claims 1, 9, 10, and 17

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- i. The claimed process is anticipated by this reference in which a water-vapor permeable PU layer is applied to a PP substrate:



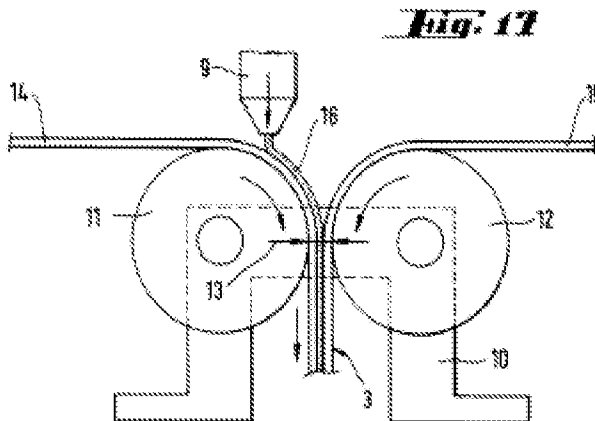
- ii. The Primary Examiner notes that, while the claim is open to the bonding agent's being different from the PU product, it does not have to be. As such, since the PU (16) serves to bond PP substrates (14) and (15) together, it reads on the claimed bonding agent. The region of the thickness of the PU layer (16) closest the PP substrates (14) and (15) thus reads on the claimed bonding agent between the PU product and the PP nonwoven. Further, EP '779 teaches that the PU is extruded in a molten state [see p. 4 of the machine translation, full paragraphs 7, 9, and 10, for example].

- iii. Since claim 17 has been amended to recite polyurethane alone, and the claim is now anticipated by EP '779.

C. Claim 2

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- i. As illustrated above, extrusion of PU (16) occurs directly in the region of pressing.
- D. Claims 5, 15, and 16
- i. The Examiner notes that, while the claim is open to the bonding agent's being different from the PU product, it does not have to be. As such, since the PU (16) serves to bond PP substrates (14) and (15) together, it reads on the claimed bonding agent. The region of the thickness of the PU layer (16) closest the PP substrates (14) and (15) thus reads on the claimed bonding agent between the PU product and the PP nonwoven.
- ii. Further, insofar as this reference also discloses an embodiment in which a portion of the PU layer (16) is applied before later portions of the same layer,



and any portion of the PU layer (16) may also satisfy the claimed "bonding agent" (see above), this embodiment satisfies the claimed providing the bonding agent "prior to applying the PU layer."

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- iii. The above-mentioned embodiments further satisfy the limitations of claims 15 and 16.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 8 remains rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2.

A. While EP '779 does not expressly teach the limitations of these claims, it is the Examiner's position that, since the reference is not limited to the preferred PU composition, any known PU material capable of bonding PP may advantageously be used. It is the Examiner's position that such a reactive hot-melt is such a material and would have been readily apparent to one skilled in

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the art as an obvious expedient for joining the two PP substrates, absent evidence to the contrary. Further, when the PU layer is interpreted as the bonding agent material as well (see above), the limitation requiring that it be “so applied onto the PP nonwoven as a bonding agent that it has not cooled down yet when coming into contact with the extruded PU product.”

13. Claim 3 remains rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2, as applied to claim 1 above, further in view of US 2005/0227086 A1.

A. EP ‘779 does not expressly recite that the PP non-woven is preheated.

B. US ‘086 teaches a process for the formation of a roof underlay in which a PP substrate is coated with PU. The PP substrate fabric is preheated as an added means of obtaining maximum adhesion of the PU [0045].

C. Consequently, it would have been obvious to one skilled in the art to modify the process of EP ‘779 so as to preheat the non-woven for this reason.

14. Claims 12 and 13 remain rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 700 779 A2, as applied to claim 1 above, further in view of US 2005/0097857 A1.

A. EP ‘779 does not teach the claimed mixture of materials.

B. US ‘857 teaches that, in order to improve the adhesion of materials to PP, maleic anhydride-modified polyolefin may be utilized [0034-0035]. This reference further teaches that incorporation of a bonding agent into PU material applied to a PP substrate will further improve adhesion [0041].

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C. Consequently, it would have been obvious to incorporate an adhesion promoter into the PU to achieve that end. It would have been further obvious to utilize a known adhesion promoter of PP substrates, such as the disclosed maleic anhydride-modified polyolefin.

D. Finally, with specific respect to 13, the amount of adhesion promoter incorporated is a result-effective variable, affecting the degree of adhesion achieved. Consequently, it would have been obvious to one skilled to optimize the amount of adhesion promoter by routine experimentation, absent evidence of criticality.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/
Primary Examiner, Art Unit 1792

1 December 2010